Discussion paper:

General performance requirements of health care organizations: the goal-integration model and the GI factor

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1. Background

This theoretical and conceptual paper focuses on the general performance requirements for organizations in general and health care organizations (HCO) in particular. The presented model postulates general principles not only regarding different organizations but also regarding different performance goals such as quality, safety, health of employees, economic growth, change management and implementation success. In general, I focus on the social basis of collective success: the functional system requirements for the survival and flourishing of social systems. The underlying hypothesis is that if an organization lacks certain basic social properties, there will be performance problems not only in one domain but also in all other organizational domains, as long as the success depends on collective action and/or sociotechnical actions. The goal of this discussion paper is to take a closer look at these basic social properties for the performance of organizations in general and health care organizations in particular. This paper perceives health care organizations as a special subcategory of organizations and organizations as a subcategory of social systems (Luhmann 1995).

Organizations are organized open and natural social systems based on networks and collectivities of people. As a subcategory of organizations, health care organizations can be characterized as professional organizations (Freidson 1963). They deliver specialized health care services to patients and citizens on the basis of complex knowledge.

Organizational performance can be divided into internal and external performance (Scott and Davis 2007). The external organizational performance can be measured by both the output and outcomes of the healthcare organization as a social system. In particular, output could be measured by the amount (volume) and quality of delivered health services (Porter and Lee

2016). The outcomes of healthcare organizations could be measured by the value created for the stakeholders of the HCO, mainly the value created for patients and citizens (Porter 2008; 2009). Internal organizational performance is in place if the organization was able to build the specific capacity to produce value for the stakeholders and especially for the patients. Performance measurement is conducted using the HCOs' shareholders' aspired level of internal organizational performance for comparison. In search of the social performance requirements of HCOs, I will use Parsons' structural-functional systems theory and with focus on his AGIL-concept. This theory bridges the gap between the natural system conception and the open system conception of organizations, while emphasizing the importance of survival and functionality. I have chosen this general theory because organizations are social systems and, moreover, because the general social systems theory of Talcott Parsons in particular delivers a comprehensive tool to analyze the performance of social systems, and hence the performance of organizations. This is the AGIL-concept of Talcott Parsons.

2. Conceptual Framework: The Goal-integration Model of Organizational Performance

In the following section, I will elaborate on the performance capacity of organizations as well as their structural prerequisites. I will then focus on two central structural prerequisites: goal attainment and social integration. These dimensions will be used for the development of the goal-integration model of organizational performance.

2.1 Performance capacity of organizations and healthcare organizations

The central problem of organizations as organized collectivities and as social actors is the ability to make a decision and act as a social unit in a timely manner. To be able to decide and act is a basic social prerequisite for system performance. If this prerequisite is not in place, the

organization as a collective actor is unable to get things done, regardless of the content of the decision. Thus, the ability to make decisions and the capacity to act are necessary but are not sufficient conditions for high performance in healthcare organizations. Even if the necessary conditions are met, high quality decisions and high quality actions are conditions that are required for organizational performance.

As an open natural system, an organization's performance is in place if the organization (i) survives, (ii) works based on the perspectives of stakeholders' aspired goals and (iii) delivers the resources that the social environment (e.g. society) and the organizational members need. Parsons' structural-functional theory deals with the central functions of social structures. Within this theory, the four function paradigm called the AGIL-scheme (Parsons 1970) is especially useful. This scheme is a typology of the functional needs of social systems. According to the AGIL-concept, there are four functional imperatives that a system has to fulfill for survival and good performance: "According to the general theory, process in every social system is subject to four independent functional imperatives or 'problems' which must be met adequately if equilibrium and/or continuing existence of the system is to be maintained" (Parsons and Smelser 1956, p. 16). For Parsons, the "systems of action generally could exhaustively be analyzed in terms of processes and structures referable to the solution – simultaneously or in sequence – of the four function problems that we called 'adaptation', 'system (not unit) goal attainment', 'integration', 'pattern maintenance and latent tension-management'" (Parsons 1970, p. 844).

According to the AGIL-scheme, social systems are in exchange with the environment, which is represented by adaptation and goal attainment (Parsons and Smelser 1956). Integration and latent pattern maintenance focus on internal problems that have to be solved in order for the

organization to function effectively and to be able to interact with the environment. The first functional imperative, adaptation, is "producing facilities" in order to reach goals (Parsons and Smelser 1956, p. 18). Adaption is a process through which a system tries to fit the environment to the system or itself to the external environment. Adaptation also refers to the fact that teams, organizational units, organizations, and societies use resources to optimize the accomplishment of routine tasks and the functioning of the system. Goal attainment, the second imperative, is about organizing the "decision-making processes" (Parsons 1956, p. 226) in order to set goals and to ensure reaching them. Goal attainment is a consummatory function which defines the ends of a social system and controls the process to attain collective ends. The social integration of a social system, the third imperative, is accomplished by the solidarity between units (Parsons and Smelser 1956). This function entails "the command of the more detailed and day-to-day support of the persons whose cooperation is needed" (Parsons 1956, p. 227). Latency (latent pattern maintenance) encompasses "the institutionalization of a value system which legitimizes both the goal of the organization and the principal patterns by which it functions in the attainment of that goal" (Parsons 1956, p. 226). The aim is "to maintain the integrity of […] the value system and its institutionalization" (Parsons and Smelser 1956, p. 15). The institutionalized value system has to be guarded against forces that alter the value system. Every social system has to fulfill these four functions in order to survive or – in case of surviving – to perform on a high level.

2.2. The goal-integration model: performance capacity through the combination of goal attainment and social integration

The basic assumption here is that certain features of healthcare organizations as collectivities make them more able to act as coherent social units and – based on this – enable them to perform better than healthcare organizations without these properties. As mentioned above, the AGIL-

scheme proposes that there are four features. In this paper I focus on two of them: goal attainment and social integration.

I propose that healthcare organizations and their sub-units (e.g. top management teams) which are able to organize the process of goal attainment in a proper and effective way and which, at the same time, are able to integrate the members of these collectivities - forming them to unified social bodies ready to decide and act - have a higher probability to perform better - internally and externally - than organizations that lack these two properties. I call this the goal-attainment-social integration model (in short: goal-integration model) of healthcare performance. This means that a social cohesive organization is a social environment that facilitates the attainment of organizational goals. Goal attainment (G) and integration (I) are prerequisites for high performance in healthcare organizations. The more organizations are challenged by segmentation, fragmentation, diversity, patient empowerment and distinctive professional cultures, the more those prerequisites apply for high performance. I will now describe the two components of the GI-model and will then turn to the interaction of both components.

2.2.1 Goal attainment (G)

Within the process of goal attainment, human and non-human resources are mobilized to achieve collective goals. In organizations, goal attainment is organized and achieved by the top management teams or leaders (CEO) mainly through power. I propose that healthcare organizations a) with a general goal attainment attitude (e.g. transformational leadership organizations) and/or b) using goal attainment techniques (e.g. monitoring goal achievements with dashboards) are generally more successful regarding goals than healthcare organizations that are not characterized by these two performance requirements. This is an unspecific effect. The second proposition is that healthcare organizations will reach goals more easily and effectively if (a) these goals are selected and decided upon in a formal, participative process,

(b) the achievement of the goals is measurable, measured and monitored, c) the goal achievement is backed up by collective action-planning, and d) the goal achievement process is controlled and evaluated with high priority (factually and symbolically) on the top level of the organization. The technical and methodological challenges are the defining and operationalization of goals to be achieved as well as the evaluating of accomplishments. Planning, programming, controlling, rulemaking, and frame setting are activities primarily concerned with goal attainment.

To be clear: goal orientation is not a given in collectivities. There are three reasons for this. First, most individuals have difficulty to set goals, prioritize them, and to act according to the set goals. Second, goal setting in collectivities is even harder than individual goal setting, because it is necessary to get a consensus on goals and their prioritization. This consensus process has to be organized in a transparent, shared way. Third, goal setting in complex settings where the individuals are representatives of different stakeholders is even more demanding. There are often no real compromises possible between extreme stakeholder positions. If the goal is set, the task of the organizational leaders is still not accomplished. They have to convince the different stakeholders and individuals to follow them in their endeavor to attain the established goals. They have to create followers: without followers there cannot be a leader (Kean et al. 2012; Podsakoff et al. 1990; Shamir 2007).

Empirical results of management studies show that a formal goal setting approach is helpful to reach these goals and to perform tasks properly (Locke and Latham 2002). There is also evidence that management through objectives as a combination of goal setting, participation in decision making, and objective feedback helps to reach desired goals (Drucker 2012; Rodgers and Hunter 1991). Furthermore, there is not only evidence from business research about the usefulness of goal setting but also from health services research. In health services, goal setting

is useful e.g. in rehabilitation (Hurn, Kneebone and Cropley 2006), and it is useful to change unhealthy behavior patterns of patients (Jay et al. 2010). There are also some hints that shared decision making in medical encounters has positive effects (Shay and Lafata 2015). Additionally, implementation science results show that giving feedback and doing audits about the level of goal attainment is helpful to reach the set goals more easily (Jamtvedt et al. 2003; Wensing, Vingerhoets and Grol 2003; van der Weijden and Grol 2005). Audit and feedback are more effective if "delivered by a supervisor or respected colleague; presented frequently; featuring both specific goals and action-plans; aiming to decrease the targeted behavior; baseline performance is lower; and recipients are non-physicians" (Ivers et al. 2014, p. 1534).

2.2.2 Integration (I)

As said above, one of the big challenges of healthcare organizations as collectivities is to decide and act as a social unit. If there is a lack of social integration, the probability is high that decisions are not made or postponed and/or that there is no collective action to implement the decisions made or that this collective action is given in a weak, low energy, chaotic, or other suboptimal form. Lack of social integration in healthcare organizations could cause social conflicts, unsolvable disputes about goal preferences and/or about the means to reach a desired goal. Thus, the ability of a healthcare organization to decide and act in a timely manner is not a given. It is based on social integration, which must be produced and stabilized constantly within healthcare organizations.

The main question is: how is social integration within healthcare organizations possible and promoted in such a way that it fosters the performance of a HCO and prevents system crisis? In social theory, there is at least one theory addressing this problem: the theory of communicative action from Habermas. For him and other scholars of organizational sciences

(e.g. Bouckaert, Peters and Verhoest 2010), the core problem of society and/or organizations is the coordination of actors with the aim to integrate them. If this is done properly, healthcare organizations are healthy, show no signs of pathology and crisis, function properly, and thus perform well (Habermas 1984, 1987; Kieser and Kubicek 1992). In times of functional differentiation, specialization without coordination leads to centrifugal forces (Bouckaert, Peters and Verhoest 2010).

How can such positive coordination be ensured? According to Habermas, there are two modes of ensuring integration of societies and their subsystems: social integration and system integration. Within the mode of social integration, actions are coordinated "through the consensus of the parties involved," but in system integration, this is achieved "through functional contexts of action" (Habermas 1987, p. 278). Social integration works through the action orientation of the involved actors, is consensus-dependent, and requires personal contact and communication. Systemic integration, on the other hand, is based on impersonal coordination mechanisms such as the market or bureaucracy (Habermas 1987). There are two possible forms of social integration: The consensus of involved parties as the basis of social integration can either be assured normatively or achieved communicatively (Habermas 1987). Normatively assured integration is achieved through the principle of socialization and hence through the internalization of values and norms. The other form of social integration is coordination by coming to an understanding through communication. Consensus, in this case, is achieved through actively reaching an understanding by negotiation and other forms of reaching a common understanding besides the normatively achieved agreement: "Coming to an understanding means that participants in communication reach an agreement concerning the validity of an utterance; agreement is the intersubjective recognition of the validity claim the speaker raises for it" (Habermas 1987, p. 184).

My proposition here is that both forms of social integration are only possible if there is a certain amount of social capital within this collectivity. This also applies to the coordination mechanisms market and bureaucracy, but to a lesser extent. Normatively assured consensus is only possible in collectivities which are organized like clans (Ouchi 1980) or communities (Bauman 2001) and have high levels of social cohesion and social capital. In these cases, consensus is pre-given, and we find "unity and agreement" within the collectivity. In social networks and societies, consensus has to be achieved. There is always the danger of not reaching consensus here because of social conflicts and disagreements. The probability of not reaching consensus is higher if the collectivity is characterized by a low level of social capital. Especially in diverse groups and collectivities, there needs to be a minimum amount of social capital to be able to reach consensus. Thus, in both cases of social integration, the organizations need communal social capital to have or to reach consensus. This is the basis for being able to decide and act as a group, which in turn is a prerequisite for organizational performance. As mentioned above, this communal social capital is already given in clans and communities. In the case of a social network, the network needs a minimum amount of communal social capital to be able to reach consensus as a prerequisite of collective action and performance.

According to Coleman (1988), social capital is defined "by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of a social structure, and they facilitate certain actions of individuals who are within the structure […] Unlike other forms of capital, social capital inheres in the structure of relations between persons and among persons. It is lodged neither in individuals nor in physical implements of production" (Coleman 1988, p. 98). The main point here is that social capital "facilitate[s] certain actions of actors – whether persons or corporate actors – within the structure" (Coleman 1988, p. 98). Putnam (1995, p. 664f) further elaborates this point.

According to his perspective, the main function of social capital is the ease of cooperation, coordination, and integration.

2.2.3 The goal-integration interaction: the GI factor in healthcare performance

The goal-integration model proposes that the performance of a social system depends on the two unspecific factors described above (social integration and goal attainment), as well as the interaction of these components. The hypothesis is that goal specific healthcare performance is high if the HCO is highly integrated and if it pursues these aims consequently (quadrant 3 in table 1). The organizational performance of healthcare institutions is medium if only one of these components is given (quadrant 1 and 4 in table 1). The HCO performance is low if none of these components are given (quadrant 2 in table 1). What are the arguments for this interaction hypothesis (moderator hypothesis)?

The first argument is that social integration facilitates setting common goals in groups. This is because social capital improves the cohesion of groups as a precursor of social integration (Putnam 2001). Because social capital "consists of the stock of active connections among people: the trust, mutual understanding and shared values and behaviors that bind the members of human networks and communities […]" (Cohen and Prusak 2001, p. 4), it is more probable to achieve consensus on the goals the group should pursue if the group has a high level of social capital. There is a performance-generating interaction through the goal setting function of integration.

The second argument is that social integration contributes to group performance by creating a cooperative environment, which in turn facilitates the attainment of group goals. Cooperation and coordination are fundamental prerequisites of organizational performance in a world of

specialization, differentiation, and professionalization. HCOs are a prime example of this. Social capital and social integration are thus prerequisites not only for goal setting but also for achieving goals mainly through the facilitation of cooperation. Social capital makes "cooperative action possible" (Cohen and Prusak 2001, p. 4). There is a performance-generating interaction through fostering cooperation.

The third argument is that integration enables collectivities to reach goals that are otherwise unattainable. For Coleman, social capital is a resource "making possible the achievement of certain ends that in its absence would not be possible" (Coleman 1988, p. 98). This is mainly the case with goals that necessarily require the cooperation of individuals to achieve them. There is performance-generating interaction through achievement of cooperation-dependent goals.

The fourth argument is that an integrated, cohesive group which derives purpose out of the content of the set goals and commitment out of the participative goal setting process is prone to collective excitement and performance energy (Bruch and Berenbold 2017; Weick 1995). This is performance-generating interaction through collective sense-making.

The fifth argument is based on the concept of social energy (Collins and McConnell 2015; Greenblatt 1988; Khrennikov 2016; Loehr and Schwartz 2003; Posmontier and Waite 2010; Schwartz 2008; Shah 2000). The basic assumption is that the combination of goal attainment and integration of energized people leads to goal-oriented bundled social energy, metaphorically like the pointing of a laser (Khrennikov 2016). I will call this the collective laser effect. In order to be very effective, united energy needs focus and direction through the goal attainment process. The bundled energy of a cohesive group needs purpose and sense to unleash

social and organizational energy (Bruch and Ghoshal 2003) and to amplify this energy by processes of social and emotional contagion (Burt and Janicik 1996; Posmontier and Waite 2010). The hypotheses are as follows:

Hypothesis 1: Individual energies + lack of social integration = chaotic social energy

Hypothesis 2: Individual energies + social integration = bundled social energy

Hypothesis 3: Bundled social energy + goal = goal-oriented bundled social energy = social laser (performance-generating interaction through the collective laser effect)

The sixth argument is that the interaction between goal attainment and social integration could lead to a reciprocal cycle. Ideally, social integration leads to social energy, which leads to better goal attainment activities and in the end to the achievement of desired goals in this reciprocal cycle. In turn, this success of the group could lead to more cohesion and social integration within the group, which is again helpful in reaching more desired goals (Pfaff 1989). This could lead to an upward spiral of organizational resources contributing to organizational performance. In a negative scenario, the interdependencies between goal attainment and social integration could also lead to a downward spiral of resources, where less integration leads to less goal orientation and in the end to the non-achievement of goals. This in turn makes the group or organization less attractive to the members, lowering social integration and making it less probable for the group to reach desired goals (performance-generating goal-integration-interaction through the resource spiral effect).

Table 1: The goal attainment-integration model of organizational performance (GI-model)

	Organizational integration = low	**Organizational integration = high**
Organizational goal attainment = high	Q1: organizational performance = middle	Q3: organizational performance = high
Organizational goal attainment = low	Q2: organizational performance = low	Q4: Organizational performance = middle

3. Applications of the Goal-Integration Model

The AGIL-concept and its sub-model, the goal-integration model (GI-model), stem from system theory. Therefore, it could be applied to every system: interaction systems, teams, organizations, and societies. This general property of the AGIL-concept makes the GI-model applicable to at least all social systems. In the following I will apply the model to two types of social systems: hospital management boards and hospitals in general.

Application 1: Management performance of hospital management boards

Hospital management boards can be conceptualized as top management teams (TMT). According to the upper echelon theory, top management teams "refer to the relatively small group of most influential executives at the apex of an organization – usually the general manager (see CEOS) and his or her direct reports" (Hambrick 2015, p. 1). The performance of TMT could be measured by team processes (e.g. regular meetings), team outputs (decisions, influence, monitoring), and outcomes (e.g. patient safety). According to the GI-model, this TMT management performance depends on the combination of social cohesion and the

activities to attain a specific goal within this top management team (see Table 5). TMT are more successful in management if they are able to combine both components, goal attainment activities and social integration. They will be less successful if they neglect one of them.

Table 2: Management performance of top management teams as a function of the combination of goal attainment and social integration

	Integration of TMT = low	**Integration of TMT = high**
TMT goal attainment = high	TMT management performance = middle	TMT management performance = high
TMT goal attainment = low	TMT management performance = low	TMT management performance = middle

Application 2: Implementation power of hospital management boards

One of the main challenges of TMT, such as hospital management boards, is to implement decisions into healthcare organization. The GI-model proposes that those TMT have more implementation power (e.g. with regard to implementation of quality management systems) if they give quality a priority and monitor quality performance in their team sessions (goal attainment activities) while being cohesive and well-integrated and thus a powerful social unit at the same time. They will have less implementation power if only one of these components or both are not given with appropriate intensity (see table 3). The implementation power depends on the social laser effect of cohesive, goal-oriented groups. These groups have the power to influence their followers by bundling the individual energies of the team members,

converting them into social energy which gets focused on a specific goal (hence, the reference of a laser light).

Table 3: Implementation power of TMT as a function of goal attainment and social integration

	Integration of TMT= low	**Integration of TMT = high**
TMT goal attainment = high	Implementation power = middle	Implementation power = high
TMT goal attainment = low	implementation power = low	Implementation power = middle

Application 3: Transformational power as a function of goal-oriented leadership combined with socially integrated followers

Transformational power and performance in hospitals and other healthcare organizations is a special form of collective performance. According to the leader-follower literature (Andersen 2012; Arnold and Connelly 2013; Sy and Choi 2013), collective performance is the result of an interaction between leaders and followers. According to the GI-model, collective and thus transformational performance depends on the individual energies bundled together by social capital and social cohesion forming social energy. Furthermore, performance is dependent on the general direction the social energy is given, e.g. social energy for the transformation of the system. Transformational behavior in hospitals therefore depends on the goal to transform the hospital (G-factor), and it depends on the social integration of the followers (I-factor) and thus on their unity and strength (see table 4).

Table 4: Transformational power as a function of the combination of transformational leaders and socially integrated followers

	Integration of followers = low	**Integration of followers = high**
Transformational leadership = high	Transformational power = middle	Transformational performance = high
Transformational leadership = low	Transformational performance = low	Transformational performance = middle

Application 4: Safety performance as an unspecific function of the synergy between transformational leaders and cohesive followers

Safety performance in healthcare organizations is a special form of collective performance. Safety performance needs social energy directed towards the quality and safety goals. As studies have shown, quality and safety performance not only depend on the upper echelon group, the top management teams, but also and even more on the middle management (e.g. head of cardiology) and ward managers (e.g. head of the ward) (Sunol et al. 2009; Sunol et al. 2015). Thus, it is necessary to broaden the scope from top management teams to all sorts of leadership levels in hospitals. Safety performance in hospitals is therefore an unspecific function of the goal orientation in general (G-factor) and the cohesiveness of the followers specifically (I-factor).

Table 5: Safety performance as a function of leaders' goal orientation and followers' cohesiveness and strength

	Integration of followers = low	**Integration of the followers = high**
Transformational leadership = high	Safety performance = middle	Safety performance = high
Transformational leadership = low	Safety performance = low	Safety performance = middle

4. Conclusions

The goal of this discussion paper was to demonstrate that two elements of the AGIL-scheme, goal attainment and social integration, are, in theory, social preconditions for organizational performance in healthcare. The hypothesis was that, when it comes to social actors, goal attainment activities are not sufficient for good organizational performance. Social actors have to achieve consensus to be able to act and decide. A known precondition for consensus is social capital. Thus, healthcare organizations that are able to strive for goals professionally and are socially well-integrated are best equipped to reach their goals and to perform well on different dimensions.

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